# CITY AND COUNTY OF HONOLULU

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MUFI HANNEMANN MAYOR



DAVID K. TANQUE DIRECTOR

ROBERT M. SUMITOMO DEPUTY DIRECTOR

April 6, 2009

2008/ELOG-1701 (df)

#### **ENGINEERING AND POLICY MEMORANDUM NO. CEB-1-09**

TO:

ENGINEERS, DEVELOPERS, UTILITY COMPANIES, GOVERNMENT

AGENCIES, CONTRACTORS, AND OTHER INTERESTED PARTIES

FROM:

DAVID K. TANOUE, DIRECTOR

DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT:

JOINTING REQUIREMENTS FOR CONCRETE SIDEWALKS AND

**DRIVEWAYS** 

This policy memorandum is intended to improve the appearance and integrity of all concrete sidewalks and reinforced concrete driveway aprons constructed in the City's rights-of-way by minimizing the potential for cracking of the concrete. It was developed as a result of recommendations from the Cement and Concrete Products Industry of Hawaii and consultation with the Departments of Design and Construction and Facility Maintenance.

## This policy memorandum shall apply to work within the City and County of Honolulu only.

Effective July 1, 2009, the following shall apply to the construction of new concrete sidewalks and driveways:

- The construction of score lines will no longer be required.
- Expansion joints shall be constructed at fixed structures, such as buildings, bridges, or walls and at the beginning and end of curb returns. The joints shall be constructed with premolded expansion-type filler and filled with joint sealer.
- 3. Divide all sidewalks between expansion joints into sections approximately five (5) feet in length by providing transverse contraction joints.

Whenever sidewalks are greater than seven (7) feet in width, longitudinal contraction joints shall be constructed such that they intersect the transverse contraction joints to form secure uniform blocks that are approximately square.

Engineers, Developers, Utility Companies, Government Agencies, Contractors, and Other Interested Parties April 6, 2009 Page 2

- 4. Divide all driveway aprons with contraction joints that are transverse to the roadway, equally spaced and no greater than five (5) feet apart. The contraction joints shall extend through the ADA-accessible route. In addition, a contraction joint shall be provided along the intersection of the driveway apron slab and the ADA-accessible route. If necessary, contraction joints parallel to the roadway shall be constructed in the driveway apron such that they intersect the transverse contraction joints to form secure uniform blocks that are approximately square.
- 5. Score lines shown on Sheets R-7, "Driveway Apron with Rolled Curb" and R-27, "Full-Width Sidewalk at Curb Return" of the Standard Details for Public Works Construction September 1984 shall be disregarded. Instead, transverse and longitudinal contraction joints and expansion joints shall be provided in accordance with this policy.
- 6. Standard Detail R-29A, dated April 2000, is hereby superseded with Standard Detail R-29A dated July 2009 (see attached). As a reminder, the detail is intended to be a guide. A site-specific detail complying with this policy may be required.
- The contraction joint detail shown on Standard Detail R-29A, dated July 2009, shall also apply for sidewalk construction. Contraction joints may be constructed either by forming or saw-cutting.

To reflect these changes, revisions to the applicable sections of the "Standard Specifications for Public Works Construction September 1986" are as follows:

### Section 42.3.C: Delete the section in its entirety and replace it with the following:

"C. Placing and Finishing. Prior to pouring of concrete, the subgrade shall be dampened. Concrete shall be poured continuously and shall be thoroughly tamped and floated to a smooth and even surface. The pouring and constructing of alternating blocks shall not be permitted."

### Section 42.3.D: Delete the section in its entirety and replace it with the following:

"D. Joints. Expansion joints shall be constructed at fixed structures, such as buildings, bridges, or walls, and at the beginning and end of curb returns. The joints shall be constructed with ½" thick premolded expansion-type filler, extending from the bottom of the sidewalk to approximately ½" below the top of the sidewalk, then filled with joint sealer.

Divide sidewalk between expansion joints into sections approximately five (5) feet in length by providing transverse contraction joints.

Where sidewalks are more than seven (7) feet in width, provide longitudinal contraction joints that intersect the transverse contraction joints to obtain secure uniform blocks that are approximately square.

The width of contraction joints shall be at least 1/8", but not greater than 3/16".

Engineers, Developers, Utility Companies, Government Agencies, Contractors, and Other Interested Parties April 6, 2009 Page 3

Construction shall be as specified under Section 37, 'Portland Cement Concrete Pavement'."

Section 46.3.C: Delete the section in its entirety and replace it with the following:

"C. Placing and Finishing. Before pouring concrete, the subgrade and the forms shall be prepared in conformity with the requirements under Section 42, 'Concrete Sidewalks.'

The concrete shall be placed on the prepared subgrade. The reinforcing mesh shall be placed at mid-depth of the driveway apron. The concrete shall be floated to a smooth and even surface.

The finished surface of aprons shall be broom-finished perpendicular to the curb. For monolithic construction of curb and driveway apron, a contraction joint shall be constructed as shown on the Standard Details."

#### Section 46.3.D: Add a new subsection D as follows:

"D. Joints. Divide the driveway apron with contraction joints transverse to the roadway that are equally spaced and no greater than five (5) feet apart. The contraction joints shall extend through the ADA-accessible route. In addition, a contraction joint shall be provided along the intersection of the driveway apron slab and the ADA-accessible route. If necessary, contraction joints parallel to the roadway shall be constructed in the driveway apron such that they intersect the transverse contraction joints to form secure uniform blocks that are approximately square.

The width of contraction joints shall be at least 1/8", but not greater than 3/16".

Construction shall be as specified under Section 37, 'Portland Cement Concrete Pavement'."

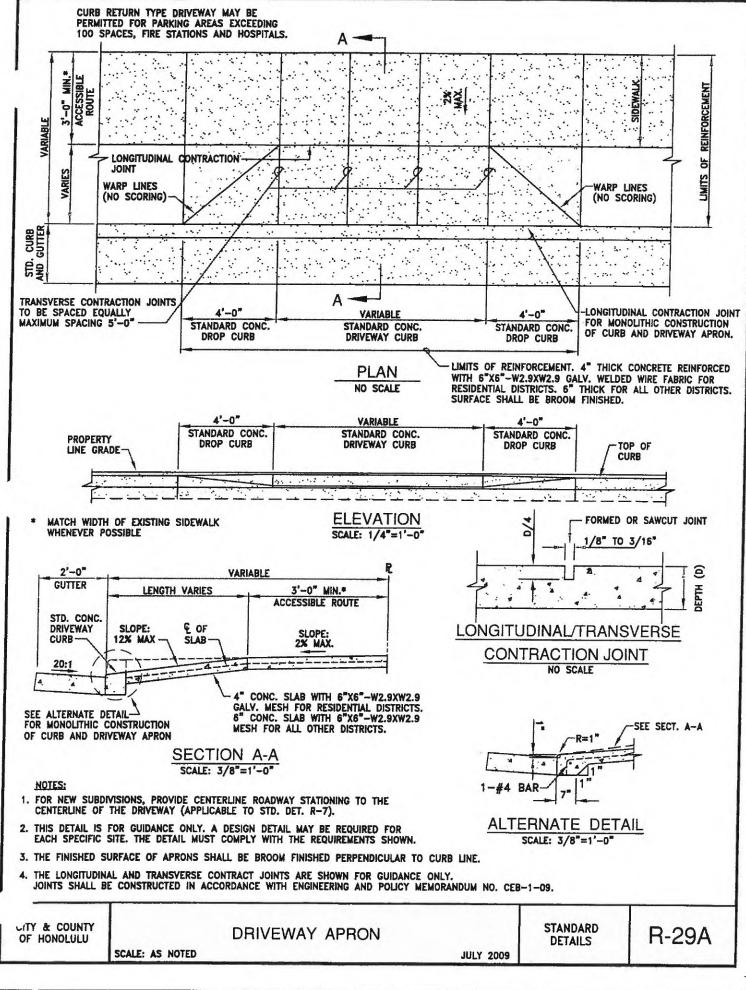
Contractors shall be responsible for assigning qualified flatwork finishers possessing the proper license, certification, job classification, skill, training, and/or experience to properly perform the work specified in accordance with this policy.

Flatwork is defined as any concrete work that requires tools or machines to be used during the placement and finishing operations of concrete. Concrete flatwork includes concrete work that requires a specified finishing, smoothness, or rigid surface tolerances, which includes, but is not limited to, sidewalks, walkways, driveways and road pavements.

If there are any questions, please contact Mr. Don Fujii of the Site Development Division at 768-8107.

DKT:ky Attachment cc: CEB-PIS

Department of Public Works - Counties of Hawaii, Maui and Kauai Cement and Concrete Products Industry of Hawaii



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